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**Environment, Health, & Safety  
Training Program**

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**EHS 422 ~ Radiation Worker Hazard Awareness**

**Course Syllabus**

**Subject Category:** Radiation Protection  
**Course Length:** 2.5 hours  
**Delivery Mode:** Class  
**Schedule:** Monthly or by special request  
**Location/Time:** TBA

**Course Prerequisite:** EHS 405  
**Medical Approval:** No

**Course Purpose:** This course expands on the radiation protection information contained in General Employee Radiation Training (GERT), and is designed for trades, crafts, or other facilities workers who will perform work under a Radiation Work Permit (RWP). The course informs the workers of the health and safety risks of radiation exposure, the ways to identify hazards, and the controls necessary to work safely with a limited range radiation hazards at Berkeley Lab. This course (or other higher level training) is mandatory before being permitted unescorted access to radiological areas to work on an RWP, and before performing unescorted assignments as a radiological worker under an RWP. Other safety training may also be required and will be specified in the RWP covering the work.

**Course Objectives:** EH&S 422 covers the following topics:

- Risks of exposure to radiation and radioactive material, including prenatal radiation exposure
- Basic radiological fundamentals and radiation protection concepts
- Administrative and engineering controls, programs, and policies for maintaining radiation doses as low as reasonably achievable (ALARA), including both routine and emergency actions
- Individual rights and responsibilities for implementing ALARA measures
- Individual monitoring procedures and availability of exposure reports

**Course Instructional Materials:**

- Overhead Projector
- Paper flip chart and white board
- Consumer Products containing radioactive materials
- Geiger Counter Beta-Gamma Survey Meter
- Air Proportional Alpha Survey Meter
- Radiation safety postings and signs

**Instructors:**

Gary Zeman (x6626)  
Mike Schoonover (x6424)  
Chris Donahue (x7736)

**Training Compliance Requirements:**

- This course is designed to meet, in part, the requirements of 10CFR835 section 901 (b), which states that each individual shall demonstrate knowledge of radiation safety topics:
- before being permitted unescorted access to radiological areas, and
- before performing unescorted assignments as a radiological worker.
- Other training, such as EH&S 400, 432 or 438 may also be required depending on the work assignment.

**Course Hand-outs:**

- Course Outline
- Slide packet

**Participant Evaluation:** Written evaluations regarding the effectiveness of the trainer, the training, and the visual aids.

**Written Exam:** Yes. Students must score at least 80% on a 10-question multiple choice exam to pass the course.

**Practical Exam:** No

**Retraining/Recertification:** Retraining is required at 2-year intervals if the worker continues or plans to work under an RWP. Retraining is not required if no further work is being done under an RWP.

**Alternates:** EH&S 400 may be taken instead of EH&S 422

**Challenge exam:** No

**WEB Resource:** see > <http://www.lbl.gov/ehs/html/training.htm><.